

- a) a fragment of cell surface P95/nucleolin,
- b) a fragment of P40/PHAPII,
- c) a fragment of P30/PHAPI,
- d) a pseudopeptide homologous to a fragment of cell surface P95/nucleolin,  
wherein both the fragment and the pseudopeptide bind to HIV,
- e) a pseudopeptide homologous to a fragment of P40/PHAPII, wherein both the  
fragment and the pseudopeptide bind to HIV, and
- f) a pseudopeptide homologous to a fragment of P30/PHAPI, wherein both the  
fragment and the pseudopeptide bind to HIV.

4. (Twice Amended) An inhibitor molecule that is homologous to the inhibitor molecule of claim 2, wherein said homologous inhibitor molecule comprises a peptide or pseudopeptide containing at least one amino acid addition, deletion, or substitution in the amino acid sequence compared to the inhibitor molecule of claim 2.

5. (Twice Amended) The inhibitor molecule according to any one of claims 2 or 4 in which a -CONH- peptide bond is replaced by a (-CH<sub>2</sub>NH-) reduced bond, a (-NHCO-) retro inverso bond, a (-CH<sub>2</sub>-O-) methylene-oxy bond, a (-CH<sub>2</sub>-S-) thiomethylene bond, a (-CH<sub>2</sub>CH<sub>2</sub>-) carba bond, a (-CO-CH<sub>2</sub>-) cetomethylene bond, a (-CHOH-CH<sub>2</sub>-) hydroxyethylene bond, a (-N-N-) bond, a E-alcene bond, or a (-CH=CH-) bond.

6. (Three Times Amended) The inhibitor molecule according to any one of claims 2 or 4, which comprises an amino acid sequence chosen from:

- the sequence beginning at the amino acid in position 22 and ending at the amino acid in position 44 of SEQ ID NO: 22;

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
www.finnegan.com

- the sequence beginning at the amino acid in position 143 and ending at the amino acid in position 171 of SEQ ID NO: 22;

- the sequence beginning at the amino acid in position 185 and ending at the amino acid in position 209 of SEQ ID NO: 22; and

- the sequence beginning at the amino acid in position 234 and ending at the amino acid in position 271 of SEQ ID NO: 22.

H3

9. (Twice Amended) An inhibitor molecule, which comprises a polymer of an inhibitor molecule according to any one of claim 2 or 4, that contains 2 to 20 monomer units from the amino acid sequence of P95/nucleolin, P40/PHAPIII, or P30/PHAPI.

10. (Twice Amended) The inhibitor molecule according to any one of claims 2, 4 or 9, which is a MAP matrix structure.

H4

13. (Three Times Amended) A composition comprising an inhibitor molecule according to any one of claims 2 or 4, in combination with at least a second compound, wherein the second compound is an anti-HIV molecule.

H5

24. (Amended) A composition comprising an inhibitor molecule according to any one of claims 2 or 4, further comprising at least a second compound.

H6

25. (New) The inhibitor molecule according to claim 5, which comprises an amino acid sequence chosen from:

- the sequence beginning at the amino acid in position 22 and ending at the amino acid in position 44 of SEQ ID NO: 22;

- the sequence beginning at the amino acid in position 143 and ending at the amino acid in position 171 of SEQ ID NO: 22;

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
www.finnegan.com

- the sequence beginning at the amino acid in position 185 and ending at the amino acid in position 209 of SEQ ID NO: 22; and

- the sequence beginning at the amino acid in position 234 and ending at the amino acid in position 271 of SEQ ID NO: 22.

26. (New) An inhibitor molecule, which comprises a polymer of an inhibitor molecule according to claim 5 that contains 2 to 20 monomer units from the amino acid sequence of P95/nucleolin, P40/PHAPIII, or P30/PHAPI.

27. (New) An inhibitor molecule, which comprises a polymer of an inhibitor molecule according to claim 6 that contains 2 to 20 monomer units from the amino acid sequence of P95/nucleolin, P40/PHAPIII, or P30/PHAPI.

28. (New) The inhibitor molecule according to claim 5 which is a MAP matrix structure.

29. (New) The inhibitor molecule according to claim 6 which is a MAP matrix structure.

30. (New) A composition comprising an inhibitor molecule according to claim 5, in combination with at least a second compound, wherein the second compound is an anti-HIV molecule.

31. (New) A composition comprising an inhibitor molecule according to claim 6, in combination with at least a second compound, wherein the second compound is an anti-HIV molecule.

32. (New) A composition comprising an inhibitor molecule according to claim 9, in combination with at least a second compound, wherein the second compound is an anti-HIV molecule.

33. (New) A composition comprising an inhibitor molecule according to claim 10, in combination with at least a second compound, wherein the second compound is an anti-HIV molecule.

34. (New) A composition comprising an inhibitor molecule according to claim 5, further comprising at least a second compound.

35. (New) A composition comprising an inhibitor molecule according to claim 6, further comprising at least a second compound.

36. (New) A composition comprising an inhibitor molecule according to claim 9, further comprising at least a second compound.

37. (New) A composition comprising an inhibitor molecule according to claim 10, further comprising at least a second compound.

38. ~~(New)~~ An inhibitor molecule that alters the interaction between a receptor located on the surface of an HIV infected cell and a gp120 envelope glycoprotein of said HIV, wherein the inhibitor is chosen from at least one of:

- a) a fragment of cell surface P95/nucleolin,
- b) a fragment of P40/PHAPII,
- c) a fragment of P30/PHAPI.

39. (New) An inhibitor molecule according to any one of claims 2 or 38, wherein the inhibitor comprises at least one of